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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,699	03/07/2002	Steven P. Spagnuolo	TRW(M)5964	2501
7590	06/04/2004		EXAMINER	
John M. Johnson Carter Ledyard & Milburn LLP 2 Wall Street New York, NY 10005			DUNN, DAVID R	
			ART UNIT	PAPER NUMBER
			3616	

DATE MAILED: 06/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/092,699

Applicant(s)

SPAGNUOLO ET AL.

Examiner

David Dunn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 15-17 and 22-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 29-37 is/are allowed.
- 6) ☒ Claim(s) 15-17 and 22-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

NOTE: Applicant is reminded that under the Revised Amendment Practice each amendment must include a complete listing of all claims in the application including **the full text of each pending claim**. In the amendment of 3/25/04 applicant did not include claims 29-37. All following amendments should include a complete listing of all claims.

#### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/25/04 has been entered.

#### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 22-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 22 is indefinite as it lines 9-11 are unclear. It is unclear how the second outer surface "extends entirely around said circumference of said shank" if the second outer surface is

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“located entirely within” the cross-sectional area. It appears that the second outer surface would have a circumference that is smaller than the circumference of the shank and therefore would not “extend entirely around” the circumference of the shank.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 22, 26, and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Kato et al. (6,298,962).

Kato et al. discloses a linkage member (201; see Figure 12A) comprising: a shank (202) extending axially along a first axis, said shank having a first portion with a first outer surface that extends entirely around a circumference of said shank and is centered on said first axis; said shank including a narrowed second portion (207) at a predetermined location along said first axis, said narrowed second portion having a cross-sectional area less than a cross-sectional area of said first portion, said shank adapted to buckle at said narrowed second portion under a predetermined axial load (see for example, Abstract, etc.), said narrowed second portion of said shank including a second outer surface that extends entirely around circumference of said shank and is located entirely within a projection of said cross-sectional area of said first portion (see Figure 12C; the circumference of 207 is entirely within that of 202, that is, it does not extend

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outside of the circumference of 202), said narrowed second portion being centered on a second axis that is offset relative to said first axis (see Figure 12C; the center of portion 207 is offset from that of 202); the weakened section is substantially linear and has a substantially uniform cross-sectional configuration (as viewed in Figure 12A, the cross-section of 207 is uniform along the length of the linkage). The axis of 207 extends parallel to that of 202. The portion of 207 extends straight along the second axis parallel to the first axis. The two axes are linear and parallel.

*Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sukigara et al. (6,234,704) in view of Kato et al. (6,298,962).

Sukigara et al. discloses a vehicle steering linkage (see column 1, lines 1-5) member comprising: a socket (2; see Figure 2); and a stud (10) having a ball end portion (11) received in the socket and supported for pivotal movement relative to said socket, said stud having a longitudinal axis, said stud having a shank portion (12) projecting from the socket and centered on the axis; said shank portion of the ball stud including a predetermined weakened portion (15), said predetermined weakened portion buckling under a predetermined amount of force (see for example, column 5, lines 50-60).

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Sukigara et al. fails to the weakened portion being not centered on the longitudinal axis of the stud.

Kato et al. discloses a linkage member (see Figure 7A) comprising: a shank (101) including a relief area (108) at a predetermined locating along the longitudinal axis, said shank buckling (see for example, Abstract, etc.) at the relief area under a predetermined amount of axially applied force, said shank at the relief area having a cross-sectional configuration that is not centered on the axis (see Fig. 7A, 7B). As seen in Figure 7A, the cross-section configuration of relief 108 is lower than the longitudinal axis of the shank 102.

As seen in Figures 5B & 5C, the cross sectionals are circular. The weakened portion is eccentric by a distance greater than the maximum bending amount in the shank.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Sukigara et al. with the teachings of Kato et al. in order to provide the weakened portion with a simpler and cheaper construction; it is also noted that both references show equivalents known for the same purpose.

***Allowable Subject Matter***

8. Claims 29-37 are allowed.
9. Claims 23-25 and 28 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

*Response to Arguments*

10. Applicant's arguments filed 3/25/04 have been fully considered but they are not persuasive.

Applicant argues that the relief area of Kato et al. is either linear with a "non-uniform cross section" or is "non-linear". In response it is submitted that the recitation of "non-uniform cross section" is very broad and has many different interpretations. First, as noted in the rejection above, the cross-section of the weakened area (see Figure 12A) is uniform along the length of the linkage. In other words, the cross-section does not vary as one travels along the linkage. Second, as seen from in Figure 12C, as the cross-section is symmetrical, it can be said to be uniform.

Regarding the recitation of "non-linear", it is noted that as shown in Figure 12A, the weakened section is clearly linear. Regarding the embodiment of Figure 7A, which is used in the 103 rejection above, it is maintained that the weakened portion is substantially linear as it extends directly between the two sides and the base portion of 108 is directly straight; therefore, the weakened section is considered to be "substantially linear."

On the final paragraph of page 5, applicant states that the new language is "similar, but not identical" to the limitation of "cylindrical weakened portion." It is agreed that the new language is not identical, however it is not considered by the examiner to be similar.

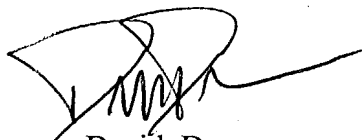
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*Conclusion*

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Dunn whose telephone number is 703-305-0049. The examiner can normally be reached on Mon-Thur, alt. Fridays, 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 703-308-2089. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'David Dunn', with a stylized, sweeping flourish extending to the right.

David Dunn  
Primary Examiner  
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